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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,025	09/25/2003	Hong-Bae Kim	1235-7 (SP-2007-US)	7851
28249	7590	07/27/2005	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			HUYNH, CHUCK	
			ART UNIT	PAPER NUMBER
			2683	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,025

Applicant(s)

KIM ET AL.

Examiner

Chuck Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee.

Regarding claim 1, Lee discloses a locking device for a handheld radiophone that attaches and detaches a battery pack to and from the radiophone comprising (Constitution):

an elastic locker having a first end fixed on the radiophone (Constitution; Fig. 3 and Fig. 4) and a second end selectively locked in a locking hole formed in the battery pack for simultaneously performing an elastic operation and a locking operation (Fig. 3 and 4); and

a pusher installed on the elastic locker, for pushing the elastic locker, for pushing the elastic locker (Constitution; Fig. 5).

Regarding claim 2, Lee discloses the locking device of claim wherein the elastic locker is formed in a "Z" shape (ZigZag pattern) (Constitution; Fig. 4, no. 13), and includes a fixed terminal, which mountedly fixed to a mounting groove of a lower casing frame of the radiotelephone (Fig. 4, no. 102a), and a free terminal, which is retreated by a predetermined interval toward at least one of a lower side and a rear side around the fixed terminal according to a pushing operation of the pusher, that are integrally formed (Fig. 4, no. 13).

Regarding claim 3, Lee discloses the locking device of claim terminal of the elastic locker has an end wherein the free portion formed in a hook shape that is inwardly bent a predetermined number of times to correspond to a shape of the locking hole of the battery pack (Fig. 4, nos. 13, 15).

Regarding claim 4, Lee discloses the locking device of claim 2, wherein a length of the free terminal is greater than a length of the fixed terminal (Fig. 4, no. 13 and 12).

Regarding claim 8, Lee discloses the locking device of claim 1, wherein the pusher comprises at least two guide ribs of a predetermined length (Fig. 4, no. 12), each of which include a hook formed on an end portion of lower side thereof (Fig. 4, no. 12a), the two guide ribs being coupled in a snap-fit structure to a penetration hole around a mounting groove of the elastic locker formed in a casing frame of the

radiotelephone (Fig. 4, no.102a), thereby enabling the pusher to be movable up and down (Constitution).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Babcock.

Regarding claim 5-7, Lee discloses all the particulars of the claim except the locking device of claim 1, wherein the elastic locker is made of metal.

However, Babcock does disclose the locking device of claim 1, wherein the elastic locker is made of metal (Page 2, [0026]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Babcock disclosure to provide a durable latch material make-up.

2. Claim 9-13, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Lin.

Regarding claim 9 Lee discloses a handheld radiotelephone comprising:

a battery pack for power supply means attachably and detachably equipped on a rear surface of a main body (Fig. 1); and

a locking device for enabling the battery pack to be attached and detached (Purpose),

wherein the locking device operates in a perpendicular direction with a length direction of the radiotelephone (Fig. 1, nos. 204 and 104).

Lee discloses all the particulars of the claim except the battery pack is attached and detached while forming an arc around an end of the radiotelephone.

However, Lin discloses the battery pack is attached and detached while forming an arc around an end of the radiotelephone (Page 1, [0012], Page 3, [0035]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate a battery latch that has the arcing capability for flexibility.

Regarding claim 10, Lee discloses the handheld radiotelephone of claim 9, wherein the locking device comprises:

an elastic locker having a predetermined elasticity, of which a first end is fixed to a predetermined position of a lower casing frame of the radiotelephone and a second end is selectively locked in a locking hole (Fig. 3);

a pusher for pushing the elastic locker (Constitution; Fig. 5).

Regarding claim 11, Lee discloses the handheld radiotelephone of claim 10 wherein the elastic locker is formed in a "Z" shape (Zigzag) (Constitution; Fig. 4, no. 13) and includes a fixed terminal, which is mountedly fixed to a mounting groove of a lower casing frame of the radiotelephone (Fig. 4, no. 10; 102a), and a free terminal, which retreated by a predetermined interval toward at least one of a lower side and a rear side around the fixed terminal according to a pushing operation of the pusher, that are integrally formed (Fig. 4, no.13).

Regarding claim 12, Lee discloses the handheld radiotelephone of claim 11 wherein the free terminal of the elastic locker has an end portion 10 formed in a hook shape that is inwardly bent a predetermined number of times to correspond to a shape of the locking hole of the battery pack (Fig. 4, no. 13).

Regarding claim 13, Lee discloses the handheld radiotelephone of claim a length of the free terminal is greater than a wherein length of the fixed terminal (Fig. 4, nos. 12, 12).

Regarding claim 17, Lee discloses the handheld radiotelephone of claim 10, wherein the pusher comprises at least two guide ribs of a predetermined length, each of which having a hook formed on an end portion of a lower side thereof, the at least two guide ribs being coupled in a snap-fit structure to a penetration hole around a mounting

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groove of the elastic locker formed in the casing frame of the radiotelephone, thereby enabling the pusher to be movable up and down (Fig. 3, nos. 105, 107, 102a).

3. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Lin in further view of Babcock.

Regarding claims 14-16, Lee in view of Lin discloses all the particulars of the claim except the handheld radiotelephone of claim 10, wherein the elastic locker is made of metal.

However, Babcock does disclose the locking device of claim 1, wherein the elastic locker is made of metal (Page 2, [0026]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Babcock disclosure to provide a durable latch material make-up.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Grosfeld, Henry discloses a Secure battery latch.

Hsu, His-Hsing discloses a Buckling-up structure for battery lid of electronic device

Suzuki, Shinji Discloses an Electronic equipment

Nakazima, Susumu discloses a Button lock

Richter, Michael discloses an Electrical contact assembly for connecting a battery to a circuit

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Chuck Huynh

A handwritten signature in black ink, appearing to read 'WT', with a long horizontal line extending to the right.

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600